Protective clap48 Rec'd PCT/PTO 15 AUG 2006

1. A hair-treatment agent with a content of a combination of

- (A) a terpolymer constructed from vinylpyrrolidone, methacrylamide and vinylimidazole and
- (B) at least one active ingredient or additive chosen from viscosity-modifying substances, haircare substances, hair-setting substances, silicone compounds, photoprotective substances, oils, waxes, preservatives, pigments, soluble dyes, particulate substances, and surfactants

in a suitable cosmetic base.

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The agent as claimed in claim 1, characterized in that the terpolymer (A) is present in an amount of from 0.1 to 10% by weight and that the viscositymodifying substance present in an amount of from 0.1 to 5% by weight is a thickening polymer, chosen from copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, and at least one second monomer type, which is chosen from esters of acid and ethoxylated fatty acrylic alcohol; crosslinked polyacrylic acid; crosslinked copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, and at least one second monomer type, which is chosen from esters of acrylic acid with C10- to C30alcohols; copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, and at least one second monomer type, which is chosen from esters of itaconic acid and ethoxylated fatty alcohol; copolymers of at least one first monomer type, which is chosen from acrylic acid and methacrylic acid, at least one second monomer type, which is chosen from esters of itaconic acid and ethoxylated C10- to C30-

alcohol and a third monomer type, chosen from C1to C4-aminoalkyl acrylates; copolymers of two or more monomers chosen from acrylic acid, methacid, acrylic acrylic esters and methacrylic esters; copolymers of vinylpyrrolidone and ammonium acryloyldimethyltaurate; copolymers of ammonium acryloyldimethyltaurate and monomers chosen from esters of methacrylic acid and ethoxylated fatty alcohols; hydroxyethylcellulose; hydroxypropylcellulose; hydroxypropylguar; glyceryl polyacrylate; glyceryl polymethacrylate; copolymers of at least one C2-, C3- or C4-alkylene and styrene; polyurethanes; hydroxypropyl starch phosphate; polyacrylamide; copolymer of maleic anhydride and methyl vinyl ether crosslinked with decadiene; carob seed flour; guar gum; xanthan; dehydroxanthan; carrageenan; karaya qum; hydrolyzed corn starch; copolymers of polyethylene oxide, fatty alcohols and saturated methylenediphenyl diiso-

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claimed in one of the preceding characterized in that the haircare or hair-setting substance present is a polymer with 25 anionizable anionic orgroups, chosen terpolymers of acrylic acid, ethyl acrylate and N-tert-butylacrylamide; crosslinked oruncrosslinked vinyl acetate/crotonic acid copolymers; terpolymers of tert-butyl acrylate, ethyl acrylate and methacrylic acid; sodium polystyrenesulfonate; 30 copolymers of vinyl acetate, crotonic acid and vinyl propionate; copolymers of vinyl acetate, crotonic acid and vinyl neodecanoate; aminomethylpropanol acrylate copolymers; copolymers of vinylpyrrolidone and at least one further monomer 35 chosen from acrylic acid, methacrylic acid, acrylic esters and methacrylic esters; copolymers of methyl vinyl ether and maleic monoalkyl esters; aminomethylpropanol salts of copolymers of allyl

methacrylate and at least one further monomer chosen from acrylic acid, methacrylic acrylic esters and methacrylic esters; crosslinked copolymers of ethyl acrylate and methacrylic acid; copolymers of vinyl acetate, mono-n-butyl maleate and isobornyl acrylate; copolymers of two or more monomers chosen from acrylic acid, methacrylic acid, acrylic esters and methacrylic copolymers of octylacrylamide and at least one monomer chosen from acrylic acid, methacrvlic acid, acrylic esters and methacrylic esters: of diglycol, polyesters cyclohexanedimethanol, isophthalic acid and sulfoisophthalic acid.

(correctly amended)

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15 claimed in one of the preceding characterized in that the haircare or hair-setting substance present is a polymer with or cationic cationizable groups chosen cationic cellulose derivatives of hydroxyethyl-20 cellulose and diallyldimethylammonium chloride; cationic cellulose derivatives of hydroxyethylcellulose and with trimethylammonium substituted epoxide; poly(dimethyldiallylammonium chloride); copolymers of acrylamide and dimethyldiallyl-25 ammonium chloride; quaternary ammonium polymers formed by the reaction of diethyl sulfate and a copolymer of vinylpyrrolidone and dimethylaminoethyl methacrylate; quaternary ammonium polymers of methylvinylimidazolium chloride and pyrrolidone; polyquaternium-35; polymer of tri-30 methylammonium-ethyl methacrylate chloride; polyquaternium-57; dimethylpolysiloxanes terminally substituted by quaternary ammonium groups; copolyof vinylpyrrolidone, dimethylaminopropyl-35 methacrylamide and methacryloylaminopropyllauryldimethylammonium chloride; chitosan and salts thereof; hydroxyalkylchitosans and salts thereof; alkylhydroxyalkylchitosans and salts thereof; N-hydroxyalkylchitosan alkyl ethers;

N-hydroxyalkylchitosan benzyl ethers; copolymer of vinylcaprolactam, vinylpyrrolidone and dimethylaminoethyl methacrylate; copolymers of vinylpyrrolidone and dimethylaminoethyl methacrylate, copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide; polyesters or oligoesters constructed from at least one first monomer type which is chosen from hydroxy acid substituted by at least one quaternary ammonium group.

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5. claimed in one of the preceding characterized in that the haircare or hair-setting substance present is a zwitterionic and/or an amphoteric polymer chosen from copolymers of octylacrylamide, acrylic acid, butylaminomethacrylate, methyl ethyl methacrylate and hydroxypropyl methacrylate; copolymers of lauryl acrylate, stearyl acrylate, ethylamine oxide methacrylate and at least one monomer chosen from acrylic acid, methacrylic acid, acrylic esters and methacrylic esters; copolymers of methacryloylethylbetaine and at least one monomer chosen from methacrylic acid and methacrylic copolymers of acrylic acid, methyl acrylate and methacrylamidopropyltrimethylammonium chloride; oligomers or polymers preparable from quaternary croton betaines or quaternary croton betaine esters.

(currently imended)

6. The agent, as claimed in one of the preceding claims, characterized in that the haircare or hair-setting substance present is a nonionic polymer chosen from polyvinylpyrrolidone, polyvinylcaprolactam, vinylpyrrolidone/vinyl acetate copolymers, polyvinyl alcohol, isobutylene/ethylmaleimide/hydroxyethylmaleimide copolymer; copolymers of vinylpyrrolidone, vinyl acetate and vinyl propionate.

(arrently amended)

gent as claimed in one of the preceding characterized in that at silicone compound is present chosen from cyclic dimethylsiloxanes, linear polydimethylsiloxanes, block polymers of polydimethylsiloxane and poly-5 ethylene oxide and/or polypropylene oxide, polydimethylsiloxanes with terminal or lateral polyethylene oxide or polypropylene oxide radicals, polydimethylsiloxanes with terminal 10 groups, phenyl-substituted polydimethylsiloxanes, silicone emulsions, silicone elastomers, silicone waxes, silicone gums and amino-substituted silicones.

(advicatly amended)

The agent as claimed in one of the preceding claims, characterized in that at least one photoprotective substance is present chosen from 2-ethylhexyl 4-methoxycinnamate, methyl methoxycinnamate, 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid and polyethoxylated p-aminobenzoates.

(correctly amended)

9. The agent, as claimed in one of the preceding claims, characterized in that at least one oil or wax is present chosen from paraffin waxes, polyolefin waxes, wool wax, wool wax alcohols, candelilla wax, olive wax, carnauba wax, Japan wax, apple wax, hydrogenated fats, fatty acid esters, fatty acid glycerides, fatty acid triglycerides, mineral oils, isoparaffin oils, paraffin oils, squalane, sunflower oil, coconut oil, castor oil, lanolin oil, jojoba oil, corn oil, soybean

(currently amended)

claimed in one of the preceding 35 <u>characterized</u> in that least at haircare or hair-setting substance is present chosen from betaine; panthenol; panthenyl ethyl sorbitol; protein hydrolysates; ether; plant extracts; A-B block copolymers of alkyl acrylates and alkyl methacrylates; A-B block copolymers of alkyl methacrylates and acrylonitrile; A-B-A block copolymers of lactide and ethylene oxide; A-B-A copolymers of caprolactone and ethylene oxide; A-B-C block copolymers of alkylene or alkadiene compounds, styrene and methacrylates; A-B-C block copolymers of acrylic acid, styrene and alkyl methacrylates; star-shaped block copolymers; hyperbranched dendrimers, intrinsically electrically conductive 3,4-polyethylenedioxythiophenes and intrinsically electrically conductive polyanilines.

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11. The agent, as claimed in one of the preceding claims, characterized 15 in that at least surfactant is present from addition chosen products of from 2 to 30 mol of ethylene oxide and/or 1 to 5 mol of propylene oxide onto C8- to C22-fatty alcohols, addition products of from 2 to 20 30 mol of ethylene oxide and/or 1 to 5 mol of propylene oxide onto C12- to C22-fatty acids. addition products of from 2 to 30 mol of ethylene oxide and/or 1 to 5 mol of propylene oxide onto alkyl phenols having 8 to 15 carbon atoms in the alkyl group, C12- to C22-fatty acid mono-25 diesters of addition products of from 1 to 30 mol of ethylene oxide onto glycerol, addition products of from 5 to 60 mol of ethylene oxide onto castor oil or onto hydrogenated castor oil, mono-, di- or 30 triesters of phosphoric acid with addition products of from 2 to 30 mol of ethylene oxide onto C8- to C22-fatty alcohols, esters of sucrose and one or two C8- to C22-fatty acids, esters of sorbitan and one, two or three C8- to C22-fatty 35 acids and a degree of ethoxylation of from 4 to 20, polyglyceryl fatty acid esters of one, two or more C8= to C22-fatty acids and polyglycerol having 2 to 20 glyceryl units, alkyl glycosides, C8-22-alkyldimethylbenzylammonium compounds,

C8-22-alkyltrimethylammonium compounds, C8-22alkyldimethylhydroxyethylammonium compounds, di (C8-22-alkyl) dimethylammonium compounds, C8-22alkylpyridinium salts, C8-22alkylamidoethyltrimethylammonium ether sulfates, C8-22-alkylmethylamine oxides, C8-22alkylaminoethyldimethylamine oxides.

(awhently amended)

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12. The agent as claimed in one of the preceding claims; characterized in that a preservative is present chosen from phenoxyethanol, benzyl paraben, butyl paraben, ethyl paraben, isobutyl paraben, isopropyl paraben, methyl paraben, propyl paraben, methyldibromoglutaronitrile, DMDM hydantoin.

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claimed in one of the preceding 13. characterized in that at least one pigment present chosen from titanium dioxide 20 77891), black iron oxide (CI 77499), yellow iron oxide (CI 77492), red and brown iron oxide (CI 77491), manganese violet (CI 77742), ultramarine (CI 77007), chromium oxide hydrate (CI 77289), Prussian blue (CI 77510), bismuth oxychloride (CI 25 77163), carmine (cochineal), pearlescent colored pigments based on mica which are coated with a metal oxide or a metal oxychloride, such as titanium dioxide or bismuth oxychloride, optionally further color-imparting substances, .30 such as iron oxides, iron blue, ultramarine or carmine and where the color is determined by varying the layer thickness.

(assently amended as claimed in one of the preceding 14. characterized . 35 in that at least one particulate chosen substance is present silica, Bilicates, aluminates, clay earths, mica, insoluble metal salts, metal oxides, minerals and insoluble polymer particles.

(currently amended)

15. The agent as claimed in one of claims 1 to 14, dainst characterized in that it is in the form of a gel, in the form of a viscous lotion or in the form of a spray gel which is sprayed with a mechanical device, comprises at least one thickening polymer according to claim 2 and has a viscosity of at least 250 mPa s (measured using a Bohlin rheometer CS, measurement body C25 at 25°C and a shear rate of 50 s⁻¹).

(currently amended)

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16. The agent as claimed in one of claims 1 to 14, Claim 1 characterized in that it is in the form of an O/W emulsion, a W/O emulsion or a microemulsion, and comprises at least one oil or wax according to claim 9, and at least one surfactant according to claim 11.

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17. The agent as claimed in one of claims 1 to 14, dwim 1

20 characterized in that it is in the form of a spray product and is either in combination with a mechanical pump spray device or in combination with at least one propellant chosen from propane, butane, dimethyl ether and fluorinated hydrocarbons.

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18. The agent as claimed in one of claims 1 to 14, during characterized in that it is in the form of a foamable product in combination with a device for foaming, comprises at least one foam-forming surfactant or at least one foam-forming polymer and is either in combination with a mechanical pump foam device or in combination with at least one propellant chosen from propane, butane, dimethyl ether and fluorinated hydrocarbons.

[Adventity amended]

19. The agent as claimed in one of claims 1 to 14, claims characterized in that it is in the form of a hair wax.

(correctly amended)

The agent as claimed in one of claims characterized in that it is in the form of foamable product in combination with a device for 5 foaming, comprises at least one foam-forming surfactant or at least one foam-foaming polymer and is either in combination with a mechanical pump foaming device or in combination with at least one propellant, and the active ingredient or additive is chosen from chitosan, chitosan salts, 10 derivatives, cationic cellulose chitosan copolymers of vinylpyrrolidone, vinylpounds, caprolactam and a basic acrylamide monomer or mixtures of these polymers.

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21. The agent as claimed in claim 20, characterized in that the active ingredient or additive is chosen from chitosan, chitosan salts, copolymers of hydroxyethylcellulose and diallyldimethylammonium chloride (polyquaternium-4), copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide or mixtures of these polymers.

(awhertly amended)

22. The agent as claimed in claim 20 or 21, characterized in that either copolymers of hydroxyethylcellulose and diallyldimethylammonium chloride (polyquaternium-4) or copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide are present.

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The agent as claimed in one of claims 20 to 22, characterized in that either copolymers of hydroxyethylcellulose and diallyldimethylammonium chloride (polyquaternium-4), or copolymers of vinylpyrrolidone, vinylcaprolactam and dimethylaminopropylacrylamide, or at least one chitosan salt are present.